ABSTRACT OF DISCLOSURE

Compounds are expressed by general formula of A_xBC_{2-y} where $0 \leq x \leq 2$ and $0 \leq y < 1$, and have CdI2 analogous layer structures; A-site is occupied by at least one element selected from the group consisting of Li, Na, K, Rb, Cs, Mg, Ca, Sr, Ba, Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, Zr, Nb, Mo, Ru, Rh, Pd, Ag, Cd, Hf, Ta, W, Re, Ir, Pt, Au, Sc, rare earth elements containing Y, B, Al, Ga, In, Tl, Sn, Pb and Bi; B-site is occupied by at least one element selected from the group consisting of Ti, V, Cr, Zr, Nb, Mo, Hf, Ta, W, Ir, and Sn; C-site is occupied by at least one element selected from the group consisting of S, Se and Te; the compounds exhibit large figure of merit so as to be preferable for thermoelectric generator/ refrigerator.